

DSP-4

• Northern blot analysis

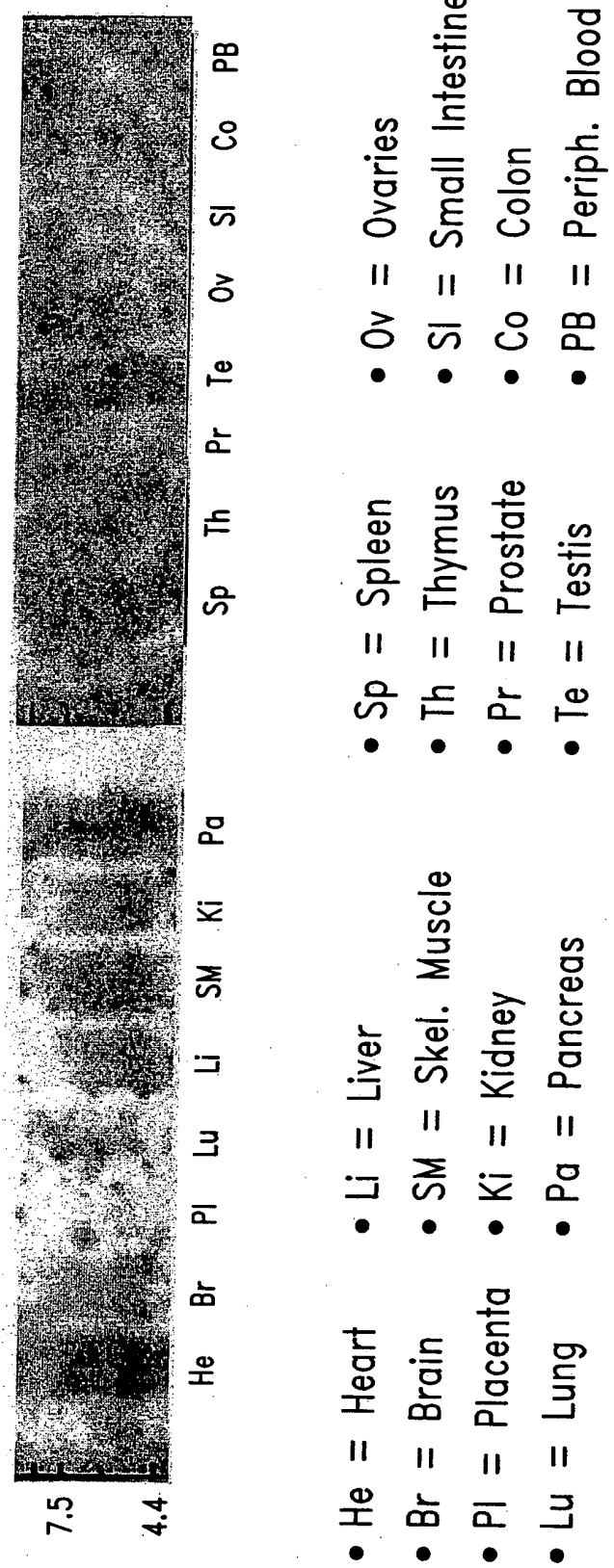


Fig. 4



Title: DSP-4 DUAL-SPECIFICITY PHOSPHATASE

Express Mail No. EV348169729US

Inventor(s): Ralf M. Luche and Bo Wei Serial No. 09/544,517 Docket No. 200125.410

DSP4, ENCODED BY 651 BASE PAIRS

ACATTGCATC CCTGGGATAA ACGGACCTGG ACAACTCACT CTCTTGGTCT GTGGCTGCTG CGGTTACCTG GATGGGCGAA CACCTCTGAG
GCTGGCTTTG TTACCTGGGC AATAAGGGAC TAGCAGTTCA GCCGTTTTCT ATGCCTGCTG GATTTGTTTG TATTTGTTCC CAGCCACTGC
TCATGTAATG TACTCCCTTA ACCAGGAAAT TAAAGCATTG TCCCGGAATA ATCTCAGGAA GCAATGCACC AGGGTGACAA CGCTAACTGG
AAAGAAAATT ATAGAAACAT GGAAAGATGC CAGAATTCAT GTTGTGGAAG AAGTAGAGCC GAGCAGTGGG GGTGGTTGTG GTTATGTGCA
GGACCTTAGC TCGGACCTGC AAGTTGGCGT TATTAAGCCA TGGTTGCTCC TAGGGTCACA AGATGCTGCT CATGATTTGG ATACACTGAA
AAAGAATAAG GTGACTCATA TTCTTAATGT TGCATATGGA GTTGAAAATG CTTTCCTCAG TGACTTTACA TATAAGAGCA TTTCTATATT
GGATCTGCCT GAAACCAACA TCCTGTCTTA TTTCCAGAA TGTTTTGAAT TTATTGAAGA AGCAAAAAGA AAAGATGGAG TGGTTCTTGT
TCATTGTAAT GCAGGCGTTT CCAGGGCTGC TGCAATTGTA ATAGGTTTCC TGATGAATTC TGAACAAACC TCATTTACCA GTGCTTTTTC
TTTGGTGAAA AATGCAAGAC CTTCCATATG TCCAAATTCT GGCTTCATGG AGCAGCTTCG TACATATCAA GAGGGCAAAG AAAGCAATAA
GTGTGACAGA ATACAGGAGA ACAGTTCATG AGTTGCATTG TAGCAGACAA TGGACAACTG TAGTTTCTGA ATTGACTTCT ATAGCCATCT
TTTCCCTTTT TTGGAGAGTA GACTAGCAAA ACTCCCTTTT TTCTCTTGCC TTTTATATGC ATAAATGGAG GTCAATCTGA TTGTCCTGAC
CTACTGTATA AGTAAATTC AAATGTCATT ACTTCTCTT TGTATTATA ATGTGTGATT AAATGCTTTT TTAATTGCT AAGGGAAAAT
AAAAAA

Fig. 1

TRANSLATED, 217 AMINO ACIDS

MYSLNQEIKAFSRNNLRKQCTRVTTLTGKKIIEIETWKDARIHVVEEVEPSSGGGCGYVQDLSSDLQVGVIKRWL
LLGSQDAAHDLDTLKKNVTHILNVAYGVENAFSLDFTYKISILDLPETNLSYFPECFEFIEEAKRKDGVV
LVHCNAGVSRAAAIVIGFLMNSEQTSFSAFSLVKNARPSICPNSGFMEQLRITYQEGKESNKCRIQENSS

Fig. 2



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1 10 20 30 40 50 60 70 80 90 100
PYST1, SOLDRD-PNSATDSGSPLSNSQSPFV-EILPFLYLGCAGKSTNLDVLEFGIKYILNTPNLPNFENAGFYKQIPISDMWSQNL SQFFPEAISFI
MKP-7, DRELPSATESDGSPPSSQPAFV-QILPFLYLGCAGKSTNLDVLEFGIKYILNTPNLPNFAFHGGFTYKQIPISDMWSQNL SQFFPEAISFI
hVH5 GLCEGPAALLPMSLSQPCLPVPSVGLTRILPHLYLGSQKVLNKLWTQNGISYLVNASWCPK-PFICESRFMRVPINDWYCEKLLPMLDKSIEFI
PAC1 PAQALPPAGAENSNDPRVPIDQGGPVEILPFLYLGSCNHSSDLQGLQACGTTAVLNVASCPNHF--GLFHYKSIPIVEDNQWVEISAMFQFAISFI
MKP-1, PLSTVPSAESGSCSTPLVDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSIPIVEDNHKADISSWFNEAIDFI
MKP-4, PVPPSATEPLDGCSSGTPLDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSIPIVEDNHKADISSWFNEAIEVI
MKP-5, SERALISQCGKPVNVSYRPAYDQGGPVEILPFLYLGSAHARXKMDLALGITALINVSANCPNHF--GHYQYKSIPIVEDNHKADISSWFNEAIDFI
DSP-4 HWEEVEPSSGGGGYVQDLSSDLQGV--IKPMLLLGSQDAHDLTLLKKNVTHILNWAYVENAF--SDFTYKSIPIVEDNHKADISSWFNEAIDFI
Consensus p s q g IIP LYLGS a l# \$ g!t LNws pn f f%k !p! D iss f eai FI

101 110 120 130 140 150 160 170 175
PYST1, DEARGKNGVLVHCLAGISRSVTVTVAYLMQKLNLSMNDAYDIVMKKSNISPNFNFQQLDFERTLGLSS
MKP-7, DEARSKKGVVLVHCLAGISRSVTVTVAYLMQKLNLSMNDAYDIVMKKSNISPNFNFQQLDFERTLGLSS
hVH5 DKAKLSSCQVIVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
PAC1 DSVKNSGGRVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
MKP-1, DSIKINAGGRVIVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
MKP-4, DAVKDCRGRVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
MKP-5, DCVREKGGKVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
DSP-4 EEAKRKGVLVHCLAGISRSATATATYIMKTGMSDDAYRFVKKRPSISPNFNFQQLDFERTLGLSS
Consensus # ak k g VIVHC AGISRSat! a%ln s A% f!k rr !sPNf f%qLl y#

Fig. 3